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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/803,806

**Applicant(s)**

MARGGRAFF ET AL.

**Examiner**

Nikolai A. Gishnock

**Art Unit**

3714

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 37-72 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 37-72 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 January 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date 8/18/2008
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Inventor's Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. In response to Applicant's remarks filed 8/18/2008, claims 1-36 are cancelled. Claims 37-72 are pending.

#### ***Continued Examination Under 37 CFR 1.114***

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/18/2008 has been entered.

#### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –  
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 37, 40-50, 53-61, & 64-72 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Margraff et al. (WO 01/83213 A1), hereinafter known as Margraff.
5. Margraff teaches a computing device, method, and computer readable media for providing instructional response (the user may be tested on the subject matter provided by the article in the print medium. The user may be given a pop quiz such as a multiple choice test to test the user on his retention of the subject matter of the article in the print medium. For

Art Unit: 3714

instance, in this particular example, the user can be tested with multiple choice questions on the subject matter of the wine article recently read. Consequently, the invention can assist a user in retaining information that he has read, page 29, lines 8-13), the computing device comprising: an input device for accepting an unstructured user input (the user may use a stylus to select numbers on an alpha-numeric keyboard disposed on the print media receiving unit. [T]he stylus or other device can be used to scan the page number of the print medium. [A] strip of numbers (0 to 9) may be present on the print media receiving unit and the user may select the page number using a stylus by selecting the corresponding combination of numbers. [A]n indicator such as a "go" circle may be present on the borders of the pages of the print medium. When the indicator is selected by the user, the position of the indicator can be determined by the electronic position determining system and that position may correspond to a particular page in the print medium, page 21, lines 14-25; the user input is understood to be unstructured, as the input is not constrained to be of any particular type; further the user may interact in any way they wish) by reading a plurality of substantially invisible codes, wherein said plurality of substantially invisible codes are printed on a surface (The pages of the print media may comprise any suitable substrate material including paper or plastic. Print elements such as letters, figures, drawings, icons, symbols, pictures, etc. may be printed on the substrate material using any suitable ink, dye, or other print material. The print in the printed medium is preferably permanently affixed to the substrate material as is ink on paper. The print medium may even be a transparency sheet with printed matter, page 9, lines 4-19; a transparent sheet is understood to be "substantially invisible" as disclosed by Applicant, who requires only that the print be not easily discernable to a human see page 5, paragraph 28 of the specification); a processor for processing said user input (page 24, line 7 through page 25, line 3), wherein said processing comprises: recognizing a plurality of print elements associated with said plurality of substantially

Art Unit: 3714

invisible codes (the processor may be a component in an electronic position determining system, which can be used to determine the location of a selected portion of a print medium disposed on the print media receiving unit. The processor may store instructions for calculating the position of the stylus over the print media receiving unit, page 24, line 7 through page 25, line 3); and in response to said recognizing, determining said instructional response (Using the position of the portion of the print medium selected by the user and an electronic copy of the print medium, the particular printed matter selected by the user can be determined by the system. An electronic position determining system can determine the position of a portion selected by a user, and a processor can determine the actual phrase, picture, etc. selected by the user using the position information and the electronic copy of the print medium. [T]he printed media receiving unit can determine both the position of the selected portion as well as the actual phrase, picture, etc. selected by the user, page 21, lines 1-13), wherein said instructional response is an instruction from said computing device for use by a user of said computing device (the publisher of a print medium capable of being used to play a game (e.g., a crossword puzzle) may provide auxiliary information about the game to be played (e.g., hints, facts about an identified word, etc.). [A]fter a typical content package is sent to the print media receiving unit, the unit may ask the user to provide responses to a number of queries. Examples of requested information may include the user's opinion regarding a certain subject, answers to a quiz, etc., page 14, line 26 through page 15, line 24); and an output device for outputting said instructional response (Any suitable audio or visual output devices may be associated with the print media receiving unit. Examples of visual output devices include display devices such as video screens, monitors, televisions, or LCDs. The audio output devices may produce primarily audio output. Examples of audio devices include speakers, earphones, headphones, voice synthesizers, etc., page 24, lines 6-15), wherein said input device, said processor and said

Art Unit: 3714

output device reside in a same housing (FIG. 7 shows a schematic diagram of the print media receiving unit. Electronic elements forming part of the electronic position locating system are embedded under the print media receiving unit on each side of the hinge. An alpha-numeric input region can be provided on the print media receiving unit to permit a user to enter data into the receiving unit. On the left hand panel of the print media receiving unit, three examples of icons are illustrated. These icons might be used by the user to make special requests. Any number of icons could be used for additional options, and the icons may be printed on a surface of the print media receiving unit. The right side of the print media receiving unit includes an optional speaker which is physically integrated into the print media receiving unit. In use, the user may place the tip of stylus on a portion of the print medium and auxiliary information relating to the selected portion can be sent to the print media receiving unit and may be audibly recited to the user, page 25, line 21 through page 26, line 15; see also Figure 7) [Claims 37, 49. & 61].

6. Margraff teaches a stylus having an optical detector for detecting said plurality of substantially invisible codes printed on said surface ([A]n optical detector can be used [for the electronic detection system]. The print media receiving unit may include a frame around a flat surface. The print medium can be disposed under the frame and on the flat surface. An array of light emitters and detectors can be around the inner edges of the frame. When a finger or a stylus is near the print medium and interrupts light coming from the light emitters, the position of the selection can be determined, page 22, line 26 through page 23, line 3), a processor coupled to the optical detector (the processor is preferably disposed within the print media receiving unit. The processor may be a component in an electronic position determining system, which can be used to determine the location of a selected portion of a print medium disposed on the print media receiving unit, page 24, lines 27-32; The stylus and an antennae system embedded

Art Unit: 3714

within the print media receiving unit may interact and determine the particular location of the printed matter selected by the user, page 21, line 26 through page 22, line 25, the processor and optical detector are understood to be coupled through the print media receiving unit); and a memory unit comprising code for audio outputs corresponding to the print element (The print media receiving unit may also include a writeable memory device, [such as] a programmable ("flash") memory or other volatile memory device. The writeable memory device can store any suitable information. For example, electronic maps of print media, as well as auxiliary information for selected print elements in the print media can be stored in the writeable memory device, page 23, lines 4-13; the auxiliary information is understood to be audio data) [Claims 40, 52, & 64].

7. Margraff teaches wherein the output device is an audio output device operable to output an audio instructional response based on said unstructured user input and in accordance with codes residing within said computing device, and wherein the output device is configured to generate an audio output related to a user created print element on said surface, wherein said surface is a writing surface (auxiliary information may be music or voice data that is capable of being converted to music or speech at the user's site. For example, a speaker associated with the print media receiving unit can transfer music, voice or data into sound. The auxiliary information may also comprise text or other graphic material that can be displayed on a display device at the user's site. In some embodiments, the auxiliary information consists primarily of, or solely of, audio information, page 13, line 8 through page 14, line 10; the print media receiving unit is understood to be a writing surface, page 3, lines 1-7) [Claims 41, 44, 53, 56, 65, & 68].

8. Margraff teaches wherein a task and an audio instructional response is audibly presented to the user by the audio output device, and wherein the instructional response relates to a task presented to the user (touching the stylus to a musical note symbol in a short boxed

Art Unit: 3714

story on tempered musical scales, might cause an application program to be downloaded. The application program may be run on the print media receiving unit. When run, the program causes a device to illustrate the concept of different tonal tempering, and may ask the user to distinguish between half tones and whole tones, page 14, lines 19-25) [Claims 42, 43, 47, 54, 55, 59, 66, 67, & 71].

9. Margraff teaches wherein the plurality of substantially invisible codes at a plurality of positions is operable to determine a location of a plurality of print elements on the surface (an electronic detection system can be used to determine that the user has made a selection. The electronic detection system is preferably an electronic position determining system which can be used to determine the position of portions of a print medium selected by a user, page 8, lines 12-15) [Claims 45, 57, & 69].

10. Margraff teaches wherein the unstructured user input is a non-keyboard user input (a user can use a stylus to select (for example, by touching) a symbol for a stock on the print medium while it is disposed on the print media receiving unit, page 5, lines 6-15) [Claims 46, 58, & 70].

11. Margraff teaches a writing device and wherein the processor, input device, output device and writing device form a housing having a pen-like appearance (A stylus may be tethered to a print media receiving unit to form a print media receiving unit assembly. [T]he stylus is illustrated as being mechanically coupled to the print media receiving unit, page 25, lines 15-20; see also Figure 7, Items 2 & 4) [Claims 48, 60, & 72].



Art Unit: 3714

***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

14. Claims 38, 39, 51, 52, 62, & 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Margraff, in view of Kardach (US 2003/0001020 A1), hereinafter known as Kardach.

15. Margraff teaches all the features of claims 37, 49, & 61, as demonstrated above. What Margraff fails to teach is wherein the unstructured user input comprises a print element created by the user on said surface [Claims 38, 50, & 62], and a writing element [Claims 39, 51, & 63]. However, Kardach teaches A method and apparatus are disclosed for taking an electronic application programs such as, for example, PowerPoint, Outlook, Windows, and Word of Microsoft Corporation of Redmond, Wash., and printing them on a piece of paper having a preprinted pattern thereon, thereby creating a hardcopy representation. The hardcopy representation of the application includes identification information (e.g., a unique ID). The identification information associates the application printed on the page with the preprinted pattern on the paper. Using a special pen, edits may be made to the hardcopy representation.

Art Unit: 3714

The pen records these edits and sends the updates to a computer system automatically. In response to the receiving the edits, the computer system updates the electronic application automatically (Abstract). a pen that may be used to make edits to the hardcopy representation. Such a pen is similar to an Anoto pen. The pen includes an inkwell for dispensing ink from the pen, a camera to create images of the unique pattern (e.g., Anoto pattern) on the hardcopy representation as well as the ID, and a processor coupled to the camera to control the operation of the camera. Processor is also coupled to memory to store the images created by camera. A transceiver is coupled to memory to send captured images and other information to a computer system. A battery powers the components in the pen. When the pen draws a line across the ID icon, it reads the ID pattern and then the paper pattern, which are both part of this larger pattern discussed above. The ID icon pattern location will be associated with the printed application, while the paper pattern will be associated with a blank page function. When the pen recognizes a pen stroke between these two pattern areas, the local composer will then associate that paper pattern with the meaning assigned it via the ID pattern. During the creation of the paper application (i.e., when it was printed), the computer will have stored paper pattern information associated with the functions to be performed (e.g., writing in this pattern area means to create an appointment). (Para. 0033-34, see also Figure 5, Item 501). The stylus taught by Margraff would contain an ink writing element disposed therein, to be used in the manner taught by Kardash for editing a document electronically with a visible, written pen stroke. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have implemented the ink writing element disposed in the pen taught by Kardash, for a user to create an unstructured user input print element on the writing surface taught by Margraff, in order to associate a printed piece of paper with an application in an ad-hoc fashion [Claims 38, 39, 51, 52, 62, & 63].

Art Unit: 3714

16. Claims 37-72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Silverbrook, in view of Nagasaki et al. (US 5,896,403), hereinafter known as Nagasaki.

17. Silverbrook discloses a computing device for providing instructional response, and a method and computer readable media for implementing a method, the media having computer readable code which when executed by a processor of a computing device cause the computing device to perform a method for providing instructional response (Instructional responses are further understood to be questions, Silverbrook teaches a user responding to questions during an examination, 4:40-5:5; also at 45:61-48:6), comprising: an input device for accepting an unstructured user input (system includes a sensing device to convey data from the form to the computer system and to contribute additional data. The sensing device is configured as a pen, which is designed to be able to physically mark the interactive form as well as to selectively enable the coded data from the form to be read and transmitted to the computer system. The coded data then provides control information, configured such that designation thereof by a user causes instructions to be applied to the software running on the computer system or network, 3:58-4:2; unstructured user input is understood as such: A free response examination paper allows the input of numeric expressions, values or text. The system may employ text conversion to allow the system to evaluate the response automatically, and unrecognized input can be routed to an examiner or administrator, 4:66-5:3) by reading a plurality of substantially invisible codes, wherein said plurality of substantially invisible codes are printed on a surface (the form is disposed on sheet material such as paper or the like which has the coded data printed on it and which allows interaction with the computer system. The coded data is detectable preferably, but not exclusively, outside the visible spectrum, thereby enabling it to be machine-readable but substantially invisible to the human eye, 3:45-57); a processor for processing said user input (The pen controller chip includes a controlling processor. {The} bus enables the exchange of

Art Unit: 3714

data between components of the controller chip, 40:51-54), wherein said processing comprises: recognizing a plurality of print elements associated with said plurality of substantially invisible codes (The controlling processor captures and decodes location data from tags from the surface via the image sensor, 40:62-64); and in response to said recognizing, determining said instructional response (the present invention provides a method of enabling examinations, including the steps of: providing a user involved in an examination exercise with an exercise form containing coded data indicative of an identity of the exercise form and of at least one reference point of the exercise form; receiving, in a computer system, response data from a sensing device operable by said user, said data regarding the identity of the exercise form and a position of the sensing device relative to the exercise form, the sensing device, when placed in an operative position relative to the exercise form, sensing the coded data and providing said response data from said coded data, 2:13-25; also, for each examination question, an examinee may give an answer. Each multiple-choice answer contains the chosen option number and the time the answer was written. Each essay answer has the essay content. The essay answer is handwritten by the user and is stored as digital ink, and optionally the writing may be converted to text using handwriting recognition. Each answer may have associated with it a score and a comment, 46:31-39), wherein said instructional response is an instruction from said computing device for use by a user of said computing device (for each examination question, the examinee may give an answer, 46:31-39); and an output device (net page printer, 41:51-42:52) for outputting said instructional response (Multiple choice questions can be automatically marked by the examination application. If a completed examination is printed by a marker, extra fields can optionally be printed for essay style questions to allow the marker to enter the score and comments against the answer, 48:1-6) [Claims 37, 49, & 61].

18. What Silverbrook fails to teach is where the input device, processor, and output device reside in a same housing [Claims 37, 48, 60, & 72]. However, Nagasaki clearly teaches this in Figure 55 and 46:61-47:29. It would be more convenient for the user to have all the necessary components of the pen of Silverbrook located in one housing as taught by Nagasaki. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have the input device, processor, and output device of Silverbrook reside in a same housing, as taught by Nagasaki, in order to provide added convenience and ease of user for a user [Claims 37, 48, 60, & 72].

19. What Silverbrook further fails to teach is wherein the output device is an audio output device operable to output an audio instructional response based on said unstructured user input and in accordance with codes residing within said computing device [Claims 41, 53, & 65], and wherein the output device is configured to generate an audio output related to a user created print element on said surface [Claims 44, 56, & 68]. However, Nagasaki teaches where sound data recorded on a paper sheet is read by a pen type information reproducing apparatus. The user traces the dot code with the pen type information reproducing apparatus to detect the dot code. Upon conversion of the dot code into a sound, the user can hear the sound through a speech output device such as an earphone. The overall information reproducing apparatus of this embodiment is housed in a portable pen type housing. Nagasaki further teaches a loudspeaker incorporated in the housing (9:60-10:8, see also Figures 2B & 3). Nagasaki teaches digital code data for implementing the restoring means for converting a dot code into multimedia information, which stores the dot code in memory, detects the marker of each block from the stored dot code, detects data array direction from the detected marker of each block, and outputs, by the first address control means, the dot code stored in the first memory in accordance with the detected data array direction (3:39-4:17). The audio instructional response

is thus understood to be based on the user input reading the dot code and in accordance with the digital code for interpreting the information. The loudspeaker for reproducing and outputting sound information, based on a code printed on paper, as taught by Nagasaki, would be incorporated into the pen of Silverbrook for generating and outputting the audio clip tags associated with a user's writing, as taught by Silverbrook. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have an audio output device form a housing having a pen-like appearance, configured to generate an audio output related to a user created print element on said surface, as taught by Nagasaki, included in the pen housing having a processor, input device, and writing device, as in Silverbrook, wherein the writing surface has a plurality of substantially invisible codes on a paper writing surface, at a plurality of positions for determining is operable to determine a location of a plurality of print elements on the surface, further operable to output an audio instructional response based on said unstructured user input and in accordance with codes residing within said computing device, in order to allow inexpensive, large-capacity recording and repetitive reproduction of multimedia information, including audio information, to be easily transmitted by a paper-printing apparatus, such as a fax machine or printer [Claims 41, 44, 48, 53, 56, 60, 65, 68, & 72].

20. What Silverbrook further fails to teach is wherein a task is audibly presented to the user by the audio output device [Claims 42, 54, & 66], wherein the instructional response is an audio instructional response presented to the user by the audio output device [Claims 43, 55, & 67], and wherein the instructional response relates to a task presented to the user [Claims 47, 59, & 71]. However, Nagasaki teaches various applications of recording of audio information including teaching materials for foreign languages and language dictionaries, repair manuals, books and magazines such as picture books, guide books for travelers, fax (voice & fax) operation

Art Unit: 3714

instructions, electronic blackboards, etc. (12:58-13:5). These various applications taught by Nagasaki are understood to audibly present a user with an instructional response in the form of a task, and would be used with the user input device of Silverbrook for accepting an unstructured written user input, recognizing a plurality of print elements, determining an instructional response, and outputting the response in an audio format. Nagasaki further teaches audio codes printed on a double-coated adhesive tape, such as a label, which peels off and is stuck on the lower surface of a roll of paper (12:58-13:5), wherein machine-readable codes are recorded in transparent ink on the upper surface of the paper (14:18-67). A required portion of the paper that can be cut and stuck on various things is understood to be a sticker. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have used the audio tag information in the pen of Silverbrook to convey an instructional response in the form of a task to a user, as taught by Nagasaki, in order to provide instructions to a user which can be faxed, listened to, and optionally read [Claims 42, 43, 47, 54, 55, 59, 66, 67, & 71].

21. Silverbrook discloses wherein the unstructured user input comprises a print element created by the user on said surface (the sensing device is configured as a pen, which is designed to be able to physically mark the interactive form as well as to selectively enable the coded data from the form to be read and transmitted to the computer system, 3:58-4:2; also, the netpage pen operates both as a normal marking ink pen and as a non-marking stylus, 41-43) [Claims 38, 50, & 62].

22. Silverbrook discloses a writing element (an ink pen cartridge with nib and a stylus with stylus nib are mounted side by side within the housing. Either the ink cartridge nib or the stylus nib can be brought forward through open end of the metal end piece, by rotation of the pen top, 39:36-42) [Claims 39, 51, & 63].

Art Unit: 3714

23. Silverbrook discloses a stylus having an optical detector for detecting said plurality of substantially invisible codes printed on said surface, and a processor coupled to the optical detector (A second flex PCB, is mounted on an electronics chassis which sits within the housing. The second flex PCB mounts an infrared LED for providing infrared radiation for projection onto the surface. An image sensor is provided mounted on the second flex PCB for receiving-reflected radiation from the surface. The second flex PCB also mounts a radio frequency chip, which includes an RF transmitter and RF receiver, and a controller chip for controlling operation of the pen. An optics block sits within the cover, and projects an infrared beam onto the surface and receives images onto the image sensor, 39:60-40:4), and a memory unit (Flash memory and a 512 KB DRAM are also included, 40:51-54) comprising code for audio outputs corresponding to the print element (A document instance corresponds to a formatted document. It consists of a set of page instances, each of which corresponds to a page description of the formatted document. Each page instance describes a single unique printed netpage. A page instance has a background field, which is used to record any digital ink captured on the page, which does not apply to a specific input element. In the preferred form of the invention, a tag map is associated with each page instance to allow tags on the page to be translated into locations on the page. A page instance consists of a set of terminal element instances. Each formatted element has a spatial extent or zone on the page. This defines the active area of input elements such as hyperlinks and input fields. A terminal element can be a static element, {etc.} A static element can be an audio clip element with an associated audio clip object, {etc.}, 14:43-15:15; it is understood that the controlling processor captures and decodes {pen} location data from tags from the {page instance's} surface via the image sensor, 40:62-64, using the flash and DRAM memory unit, where the terminal element's location is associated



with a tag, and the terminal element is associated with an audio clip object) [Claims 40, 52, & 64].

24. Silverbrook teaches wherein the plurality of substantially invisible codes at a plurality of positions is operable to determine a location of a plurality of print elements on the surface (3:58-4:2) [Claims 45, 57, & 69].

25. Silverbrook teaches wherein the unstructured user input is a non-keyboard user input (handwritten input, 4:66-5:3; also at 46:31-39) [Claims 46, 58, & 70].

26. Silverbrook teaches a writing device (39:36-42) [Claims 48, 60, & 72], and wherein a surface is a writing surface (paper, 3:45-57) [Claims 44, 56, & 68]. Silverbrook teaches wherein the processor, input device, and writing device form a housing having a pen-like appearance (39:10-40:23) [Claims 48, 60, & 72].

### ***Response to Arguments***

27. Applicant's arguments filed 8/18/2008 have been fully considered but they are not persuasive.

28. Applicant states at pages 12 that Silverbrook fails to teach or suggest a plurality of substantially invisible codes printed on a surface. However, Silverbrook's location tags are understood to be codes See 40:62-64. Thus, Applicant's arguments are not persuasive.

29. Applicant further states at pages 13-14 that Silverbrook and Nagasaki fails to either teach or suggest an audio instructional response based on unstructured user input and in accordance with codes residing within the computing device. However, Nagasaki contains program and data code for interpreting a dot code as scanned by the user into an audio response (3:41-4:17). The composition of the audio response is understood to be nonfunctional printed indicia which Examiner gives little patentable weight, when lacking any new and

unobvious functional relationship between the printed matter and the substrate. See MPEP 2112.01(III). Where the only difference between a prior art product and a claimed product is printed matter that is not functionally related to the product, the content of the printed matter will not distinguish the claimed product from the prior art. *In re Ngai*, 367 F.3d 1336, 1339, 70 USPQ2d 1862, 1864 (Fed. Cir. 2004). See also *In re Gulack*, 703 F.2d 1381, 1385-86, 217 USPQ 401, 404 (Fed. Cir. 1983). Hence, Applicant's argument is not persuasive.

30. In response to applicant's argument at pages 14-15 that there is no suggestion to combine the Silverbrook and Nagasaki references, because one would not be motivated to have a writing device that comprises an output device where the writing device forms a housing, as claimed; that using a speech output device of Nagasaki does not only fail to serve a constructive purpose since it has no use for an examinee answering questions under exam condition but it would be disruptive to other examinees taking the exam, as the sensing device, as disclosed by Silverbrook, is merely for detecting coded data and transmitting the coded data to a computer system where the examiner and/or marker can mark and process the exam; Examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Silverbrook teaches the use of the netpage pen by an examination user or a participant in any other netpage activities, educational or otherwise (46:3-7). Silverbrook is understandably not limited to an embodiment of traditional examination in a classroom. There is no suggestion in Silverbrook that disruption to test takers would occur if audio feedback is used in educational activities. Further, Nagasaki teaches a pen device, comprising a writing device and an audio

Art Unit: 3714

device in the same housing as claimed (10:1-8). Nagasaki clearly teaches where the audio device may be a loud speaker; also, headphones or earphones may be used with the device. It is old and well-known in portable media players, e. g. portable CD players and LCD DVD players, to provide a headphone jack for internalizing the sound output, which automatically mutes the internal speaker, for the purpose of privacy and courtesy. Therefore, it would have been obvious to one of ordinary skill in the art, at the time of invention to use the pen device as in Nagasaki, having an audio device and a writing device in a housing, in the system and method of Silverbrook, in order to increase the privacy level of the audio. To wit, Nagasaki teaches using earphones because they are detachable (16:16-27). However, it is common knowledge to use earphones to avoid disturbing one's neighbors. The fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). Further, at least columns 44-48 of Silverbrook teach using the device to take examinations. Disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or non-preferred embodiments. *In re Susi*, 440 F.2d 442, 169 USPQ 423 (CCPA 1971). A reference may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art, including non-preferred embodiments. *Merck & Co. v. Biocraft Laboratories*, 874 F.2d 804, 10 USPQ2d 1843 (Fed. Cir.), cert. denied, 493 U.S. 975 (1989). See MPEP 2123. In the instant case, there is no explicit disparaging remarks made by Silverbrook or Nagasaki that indicate that presenting a question to be answered using audio output would disrupt other examinees. Such a useful instance may be when a blind user takes an exam using Braille print elements. Thus, the argument is not convincing.

31. In response to applicant's argument at page 16 that there is no suggestion to combine the Silverbrook and Nagasaki references, as Nagasaki discloses providing auditory teaching material and providing audio output that are educational in nature, and fails to either teach or suggest that a task is audibly presented to the user by the audio output device; as a task, as claimed, asks a user to perform an action as dictated by the task. However, Nagasaki teaches an application of the recording of audio information may be fax operating instructions (12:58-13:6). Instruction pertaining to operating a fax is understood to be asking a user to perform an action, as dictated, thus it is a task, as defined. It is irrelevant whether the nature of the task presented is educational. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have used the audio tag information in the pen of Silverbrook to convey an instructional response in the form of a task to a user, as taught by Nagasaki, in order to provide instructions to a user which can be faxed, listened to, and optionally read. As such, Nagasaki explicitly teaches the limitation, and Applicant's argument is not convincing.

32. Applicant's further arguments with respect to claims 37-72 have been considered but are moot in view of the new ground(s) of rejection based on Margraff and Kardach.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nikolai A. Gishnock whose telephone number is (571)272-1420. The examiner can normally be reached on M-F 8:30a-5p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xuan M. Thai can be reached on 571-272-7147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3714

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9/22/2008

/N. A. G./

Examiner, Art Unit 3714

/XUAN M. THAI/

Supervisory Patent Examiner, Art Unit 3714